

Abstract of the Disclosure

A sliding means with built-in moving-magnet linear motor is provided, realizing high-speed operation and much response ability of a table to a stationary bed, and also accurate position control of the table to the bed. With the sliding means of this invention, armature windings carry a three-phase current while a driving circuit is transferred to the external driver to make the bed slim in construction. Thus, the sliding means is reduced in overall height. A field magnet of rare earth permanent magnet is effective in raising flux density, thereby providing high propulsion for the table. An encoder to monitor a position of the table is an optical encoder having an optical linear scale, which contributes to improvement in accurate monitoring. The construction in which the armature windings connected to cords, lines, and so on are placed on the stator side has no fear of causing dust and dirt, thus realizing clean environment.